DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009150 Address: 333 Burma Road **Date Inspected:** 17-Sep-2009

City: Oakland, CA 94607

OSM Arrival Time: 645 **Project Name:** SAS Superstructure **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Xu Xian Ping No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

OBG & TOWER Components **Bridge No:** 34-0006 **Component:**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Sandeep Kumar was present during the times noted above for observations relative to the work being performed.

BAY 2

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #036 located on Floor Beam FB3021 – 001. Welder is identified as 206358. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132 - 3.

FCAW process welding of weld joint #022 located on Floor Beam FB3094 – 001. Welder is identified as 215676. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2133.

FCAW process welding of weld joint #046 located on Floor Beam FB3021 – 001. Welder is identified as 206358. ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2233 - Tc - U4b - F.

FCAW process welding of weld joint #022 located on Floor Beam FB3009 – 001. Welder is identified as 045203.

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ZPMC QC is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132 - 3.

BAY3

This QA Inspector observed the following work in progress:

SMAW process welding of weld joint #104 located on CSD5 – PP99. Welder is identified as 208567. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – P -2112.

FCAW process welding of weld joint #012 located on Longitudinal Diaphragm LD002 - 045. Welder is identified as 044790. ZPMC QC is identified as Guo Yuan Ting. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2231 – Tc – P4 – F.

BAY 5

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #001 located on Traveler Rail Bracket TR2A – PP080. Welder is identified as 066064. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - Tc - U4c - F.

FCAW process welding of weld joint #036 located on Bike Path BK001 – 031. Welder is identified as 058174. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS -B-T-2133.

FCAW process welding of weld joint #001 located on Traveler Rail Bracket TR2A – PP072. Welder is identified as 068858. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS -B - T - 2232 - Tc - U4c - F.

FCAW process welding of weld joint #019 located on Bike Path BK001 – 032. Welder is identified as 053742. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS -B-T-2133.

FCAW process welding of weld joint #004 located on Traveler Rail 11TR1 – 026. Welder is identified as 215689. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

FCAW process welding of weld joint #044 located on Bike Path BK001 – 036. Welder is identified as 215185. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS -B-T-2133.

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FCAW process welding of weld joint #003 located on Traveler Rail 11TR1 – 025. Welder is identified as 217805. ZPMC QC is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

FCAW process welding of weld joint #023 located on Bike Path BK001 – 036. Welder is identified as 215009. ZPMC QC is identified as Wang Liang. The welding variables recorded by QC appeared to comply with the WPS -B-T-2133.

BAY 6

This QA Inspector observed the following work in progress:

TOWER

SMAW process welding of weld joint #7B located on WD1 – A305 – 77M – 1. Welder is identified as 053753. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS - 485 - SMAW - 2G (2F) FCM - Repair - 1.

SMAW process welding of weld joint #7A located on WD1 – A305 – 77M – 2. Welder is identified as 049769. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS - 485 - SMAW - 2G (2F) FCM - Repair - 1.

SMAW process welding of weld joint #1A located on WD1 – A305 – 77M – 1. Welder is identified as 067707. ZPMC QC is identified as Zhang Bao Bo. The welding variables recorded by QC appeared to comply with the WPS - 485 - SMAW - 2G (2F) FCM - Repair - 1.

Cross Beam - 9

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #008 located on Cross Beam CB202A – 009. Welder is identified as 048625. ZPMC QC is identified as Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2132.

FCAW process welding of weld joint #002 located on Cross Beam CB202A – 009. Welder is identified as 220688. ZPMC QC is identified as Liu Chuan Gang. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2232 - Tc - U4b - F.

This QA Inspector observed the following work not in compliance:

During Quality Assurance (QA) random visual inspection on Tower Struts, observed that, the FCM base metal of 75mm thickness had been arc gouged approximately 50mm length and 4mm in deep. According to AWS D1.5 2002, the cutting flame shall be so adjusted to avoid cutting beyond the prescribed lines. The Tower strut identified as WD1-A305-65M-3.

For Further details please see the incident report: - 040120F4_TL-15_B227_09-17-09_ Base Material Damage.

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BAY 7

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #027 located on Side Plate SP3026 – 017. Welder is identified as 051784. ZPMC QC is identified as Zhong Dian Xing. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2233 - Tc - U4b - F.

FCAW process welding of weld joint #047 located on Side Plate SP3026 – 017. Welder is identified as 051246. ZPMC QC is identified as Zhong Dian Xing. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2233 - Tc - U4b - F.

BAY 8

This QA Inspector observed the following work in progress:

FCAW process welding of weld joint #003 located on Cross Beam CB202B – 013. Welder is identified as 069118. ZPMC QC is identified as Xia Yong Zheng. The welding variables recorded by QC appeared to comply with the WPS - B - T - 2231 - B - U2 - F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Kumar,Sandeep | Quality Assurance Inspector |
|---------------|---------------|-----------------------------|
| Reviewed By: | Prue,Erik | QA Reviewer |